



The Fertilizer Institute

Nourish, Replenish, Grow

William C. Herz
Vice President,
Scientific Programs

Federal Trade Commission
Office of the Secretary
600 Pennsylvania Avenue, NW.
Room H-135 (Annex O)
Washington, DC 20580

RE: Carbon Offset Workshop--Comment, Project No. P074207

Dear Federal Trade Commission Representative:

The Fertilizer Institute (TFI), on behalf of its member companies, submits these comments in response to the Federal Trade Commission's (FTC's) *Draft Carbon Offset Workshop--Comment, Project No. P074207*. The document was announced in the *Federal Register* on November 27, 2007.

Statement of Interest

TFI represents the nation's fertilizer industry. Producers, manufacturers, retailers, trading firms and equipment manufacturers, which comprise its membership, are served by a full-time Washington, D.C., staff in various legislative, educational and technical areas as well as with information and public relations programs.

TFI member companies are potential consumers and providers in the emerging market for carbon offsets (*i.e.*, greenhouse gas emission reduction products) and renewable energy certificates. Thus, we have a substantive interest in this report on Gulf of Mexico (GOM) hypoxia.

General Comments

TFI welcomes the FTC's review of consumer protection issues raised by the marketing of offsets and renewable energy certificates (RECs), as well as marketing and advertising claims based on the purchase of these products. We agree that the FTC has a substantive role to play in combating unfair and deceptive practices in this market.

Further, TFI agrees with the FTC's conclusion that the Commission does not have the authority or expertise to establish environmental performance standards and the Commission's decision to not develop environmental standards for carbon offsets and RECs (72 FR 66096). TFI continues to work with applicable federal agencies, including

the Environmental Protection Agency (EPA), Department of Energy (DOE) and the U.S. Department of Agriculture (USDA), as well as qualified private entities such as the Chicago Climate Exchange (CCX) to develop quantifiable performance standards for carbon offsets and RECs.

However, TFI remains concerned regarding the potential impact that the FTC's consumer protection initiative may have on our members' ability to purchase carbon offsets and RECs, to offset emissions through private renewable energy projects and to sell excess renewable energy on the open market.

U.S. agricultural soils hold the potential to sequester large amounts of carbon, ranging from USDA estimates of 40-590 million metric tons of carbon dioxide equivalents (MMTCO₂-Eq) to EPA estimates of 160-990 MMTCO₂-Eq. Sequestration would occur through a series of best management practices (BMPs), including the stewardship system which TFI and affiliated organizations have developed, a system which focuses on applying the right fertilizer product at the right rate, time and place. This system allows the farmer/producer to focus on hitting the environmental and economic midpoint, using a measure of nutrient use efficiency as one of the driving variables. United States farmers are using fertilizer nutrients with greater efficiency than any time in history; literally using approximately the same quantities as 25 years ago while obtaining corn yields which are forty percent higher.¹ TFI also points out that the most appropriate BMP or conservation practice may differ depending on soil type, crop, and geographic region.

These practices which may sequester carbon efficiently include soil management, manure and nutrient management, and conservation practices such as no-till and low till. Where appropriate, forestation, landscape improvements, conservation buffers may be effective. However, there are uncertainties involved in quantifying and verifying biological sequestration offsets, including permanence/duration, measurement/accounting, effectiveness, additionality and leakage. Work continues at various federal agencies, universities and private entities to reduce the uncertainty associated with BMPs and land conservation practices. However, TFI remains convinced that biological sequestration offsets remain a viable and effective means of offsetting carbon emissions and that any FTC consumer protection guidelines must take into account natural variability and provide some means of incorporating the uncertainty inherent in carbon offset and REC quantification and verification.

Energy Cogeneration Using Waste Heat

TFI encourages the FTC to devise standards and guidelines that allow for new technologies and emerging markets for carbon offset and REC transactions. Offsets from waste heat electricity generation and electrical generation from non-carbon based sources, such as from sulfuric acid production, are potentially viable carbon offset generators. Any future FTC standards or guidelines should have enough flexibility to incorporate new technologies as legitimate sources of offsets for future market transactions.

¹ Computed using USDA Chemical Usage Survey (2007) data.

Cogeneration with “waste heat” is perhaps the cleanest and most efficient alternative available in the market today. To understand why, it is necessary to begin with an understanding of the process used by a typical waste heat generator, such as a phosphate fertilizer manufacturer. This process produces electricity without the use of any fuel, without the emission of any pollutants, and without the utilization of any open land area.

As an example, phosphate fertilizer manufacturers rely on two essential materials to produce their products: (1) phosphate rock which they obtain from mines, and (2) sulfuric acid which they produce from elemental sulfur. (It is important to note that the majority of the elemental sulfur used in phosphate fertilizer manufacturing is actually a waste product recovered during the desulphurization process of producing petroleum based fuels.) When the sulfuric acid is reacted with phosphate rock, it digests the rock and leaves phosphoric acid as a resultant chemical. The manufacturer then uses evaporators to eliminate water from the phosphoric acid, after which it can be reacted with ammonia to form mono-ammonium phosphate (MAP) or di-ammonium phosphate (DAP) -- the two most common phosphate fertilizers.

Therefore, the first preliminary step in the production process is the manufacture of sulfuric acid (H_2SO_4). To produce this acid, the manufacturer begins with elemental sulfur, which it burns in a furnace at temperatures of approximately 2000°F. No other form of fuel is introduced or used in the furnace; rather, the sulfur burns by itself, reacting with atmospheric oxygen in the process. The result is hot sulfur dioxide (SO_2) gas. Because this gas is at temperatures of nearly 2000°F, it must be cooled before it can be injected into a catalytic converter for conversion to sulfur trioxide (SO_3) -- a molecule that can be reacted with water to form sulfuric acid. The catalytic conversion of sulfur dioxide to sulfur trioxide results in heat generation that must be controlled for the process to operate efficiently. The captured heat from the catalytic conversion is utilized for additional energy benefit.

No other form of generation is cleaner or more efficient. When compared to conventional power generators, phosphate fertilizer manufacturers differ in several important respects:

- 1. No fuel.** Phosphate fertilizer manufacturers use no fuel to generate electricity. Instead, the necessary heat is created when they burn elemental sulfur to form sulfur dioxide gas -- a process they must conduct in any event, regardless of whether they wish to use the resulting “waste heat” for other purposes.
- 2. No pollutants.** Using the resulting heat to create steam -- and running the residual steam through a turbine -- creates no emissions other than the steam itself.
- 3. Low cost.** The cost of generation is extremely competitive with traditional generation resources because there is no fuel cost and no significant capital cost beyond heat recovery systems, steam turbines and electrical generators.

Moreover, because the turbine generator is simply added to the site of the existing fertilizer plant, the process does not require the utilization of open land areas. No

landscapes are altered, no nuisances are created, and no wildlife is threatened. In contrast to wind and solar power, the environment is not disturbed in any way. Generation with waste heat is, in fact, the very definition of “green” power and should be eligible for carbon offset credits or allowances. We also note that cogeneration is possible and practiced during nitric acid manufacture, an important precursor to the production of nitrogen fertilizers.

Specific Comments

TFI provides comments to applicable questions included in the Federal Register notice as follows.

- (1) What express claims are sellers making for carbon offsets and RECs? What claims, if any, are implied by that advertising? How do consumers interpret these claims? Please provide any supporting evidence. What evidence constitutes a reasonable basis to support these claims? What challenges do offset and REC sellers face in substantiating their claims? Is there evidence that any claims in the current marketplace are unsubstantiated or otherwise deceptive?**

Carbon offsets and RECs that are based on biological sequestration programs such as BMPs and land conservation initiatives must include defined uncertainty limits in any decision on substantiation of claims. Uncontrollable factors such as extreme weather events, drought and pest/disease outbreaks can affect the efficacy of biological sequestration offsets. Uncertainty parameters should be defined by those federal and state agencies with authorization to establish environmental performance standards. Any future FTC standard or guidelines should incorporate applicable uncertainty provisions within environmental standards and base decisions on how an offset or REC purchase compares with that standard.

- (3) When consumers purchase carbon offsets or RECs, what property rights do they acquire?**

Carbon offsets or REC purchases should be governed by the contractual obligations agreed to by both parties. Unless property rights are expressly conveyed by the contract, the purchaser should not acquire any property rights.

- (5) What impact do consumers believe their carbon offset purchases will have on the future quantities of greenhouse gasses in the atmosphere? Please provide any supporting evidence.**

Carbon offsets or REC purchases should be governed by the contractual obligations agreed to by both parties. Any FTC determination on consumer perception or a seller’s claims as to future quantities of greenhouse gasses in the atmosphere should be based on the actual contractual values of the purchases, and should be verifiable from a scientific perspective.

(6) Do consumers understand that some activities supported by carbon offset programs do not result in immediate carbon emission reductions? If so, when do consumers expect such offset programs will have an impact? Please provide any supporting evidence.

Contractual or regulatory language should be clear on whether the practices or actions regarding a carbon offset are immediate or occur over time (such as reforestation or carbon sequestration through an agricultural crop). Carbon offsets or REC purchases should be governed by the contractual obligations agreed to by both parties. The FTC should not base future decisions on expectations beyond contractual obligations.

(7) What is the relationship between the concept of “additionality” in carbon offset markets and the FTC's standard for deception under the FTC Act?

The definition of additionality, including establishment of baseline conditions and offsets beyond baseline conditions should be the purview of those federal and state agencies with authorization to establish environmental performance standards. Any future FTC standard for deception under the FTC Act should incorporate applicable environmental standards and base decisions on how an offset or REC purchase compares with that standard.

(9) Please identify third-party and self-regulatory programs that address consumer protection issues in the carbon offset and REC markets. Please explain how the programs address these issues and whether they are effective.

The Chicago Climate Exchange (CCX) is an international greenhouse gas emission reduction, audit, registry and trading program based in the U.S that assists industrial, governmental and academic participants to execute legally binding commitments to meet annual emission reduction goals. CCX rules require that all emission baselines, annual reduction commitments and offset projects are annually subjected to independent audit by authorized experts.

CCX rules require an independent verification report on project eligibility and effectiveness before the exchange will issue Offsets to the Member's CCX Registry account. To ensure that offsets are not double-counted, CCX uses a unique serial number system in the CCX Registry and requires contractual provisions for projects enrolled in CCX.

All CCX projects also are subject to independent third-party onsite verification to ensure that enrolled farmers have met their contractual commitments. CCX rules require farmers to sign contracts committing them to five years of continuous conservation tillage on the enrolled plots. To address the possibility of reversal of carbon storage, CCX requires 20% of all earned offsets to be placed into a reserve.

Conclusion

TFI appreciates the opportunity to offer comments on the development of certification procedures regarding buying and selling of carbon offsets. Should you have any questions regarding these comments, please contact me at (202) 515-2706 or via e-mail at wcherz@tfi.org.

Sincerely,

William C. Herz
Vice President, Scientific Programs